

Traditional Vs. Alternative Treatments: Patient Perspectives in Malaria Care

Mugisha Emmanuel K.

Faculty of Science and Technology Kampala International University Uganda

ABSTRACT

Malaria remains a major global health challenge, particularly in regions with limited healthcare access. This study examines patient perspectives on traditional and alternative treatments for malaria, focusing on their motivations, beliefs, and treatment-seeking behaviors. Traditional medicine, rooted in cultural heritage, continues to play a significant role in malaria care, while biomedical treatments offer scientifically validated remedies. However, financial constraints, accessibility issues, and cultural beliefs influence patients' treatment decisions. This paper examines how these factors shape the integration of traditional and Western medicine, highlighting potential strategies for improving malaria treatment and prevention.

Keywords: Malaria treatment, traditional medicine, alternative medicine, patient perspectives, healthcare access, cultural beliefs.

INTRODUCTION

Malaria is a significant global health challenge, with millions of new cases reported annually. The treatment path is complex, featuring diverse perspectives from traditional and Western medicine [1, 2]. This paper examines the different methods of treatment adopted by malaria patients, focusing on those from alternative medical backgrounds. Treatment options influence patient perceptions of health and illness, affecting their willingness to seek care [3, 4, 5]. By exploring these diverse views, the paper aims to enrich our understanding of malaria and identify new prevention and treatment strategies. The paper is structured around three main points, beginning with the question of what constitutes malaria treatment. Understanding available treatments is crucial for exploring patient perspectives [6, 7, 8]. The first theme assesses how malaria is understood and experienced in various cultural contexts, noting that patients' views of their illness significantly affect their treatment choices and access to further care. Malaria exemplifies how conflicting interpretations of treatment can emerge, reflecting the complex spectrum between health and illness. The second theme investigates the various treatments available for malaria and the differing opinions on their effectiveness, underscoring how treatment perspectives shape broader notions of health and disease [9, 10, 11].

Overview of Malaria

Malaria is a severe infectious disease caused by Plasmodium parasites, presenting symptoms like fever, headache, chills, and vomiting within 10-15 days post-infection. If untreated, it can become critical or fatal, with five species affecting humans: *P. falciparum*, *P. vivax*, *P. ovale*, *P. malariae*, and *P. knowlesi*. Over 90% of malaria deaths occur in Africa, where transmission occurs via infected female Anopheles mosquitoes [12, 13, 14]. These mosquitoes ingest Plasmodium gametocytes, allowing the parasites to develop and migrate to their salivary glands. Sporozoites are transmitted to humans during bites, entering their circulatory system. Not all Anopheles species can carry Plasmodium, limiting transmission. The World Health Organization has classified malaria as a "top-tier" public health issue in 28 countries,

primarily in sub-Saharan Africa, a region with the highest incidence. Socioeconomic factors exacerbate the malaria burden, affecting impoverished populations the most [15, 16, 17]. Although malaria cases have declined over the past decade, epidemics persist, and the reduction rate has slowed. Understanding malaria transmission and symptoms is vital for prevention and treatment, yet misconceptions about direct transmission without mosquitoes remain [18, 19, 20]. This misunderstanding complicates control efforts as early symptoms overlap with other diseases, straining health systems. After sporozoites enter the bloodstream, they reach the liver and invade hepatocytes, which release harmful toxins. *P. vivax* and *P. ovale* can enter a dormant phase, causing relapses years later [21, 22]. The next stage involves invading red blood cells (RBCs), where the parasites disrupt circulation and cause cyclic fever, particularly with *P. falciparum*. Many parasites sequester in capillaries, avoiding the spleen while causing blockages in vital organs. *Plasmodium* parasites have developed mechanisms to evade the immune system and adapt to various cell environments. The socio-economic factors associated with malaria significantly hinder control efforts, particularly in resource-limited areas [23, 24].

Traditional Treatments

The type of treatment sought by an individual for malaria care can be largely dependent on past experiences and current circumstances. It is noted in West Africa that a variety of choices are made regarding treatment for a common health problem in this area. A vast range of beliefs, practices, and causes concerning the origin of malaria has created a spectrum of therapeutic responses. To some, malaria is thought to be contracted by exposure to a mosquito-infested environment. Others view the disease as an invasion of bad air into the body. With this notion, a large percentage of the population associates the occurrence of disease with extensive sweating from heavy physical labor, such as farming [25, 26, 27, 28]. Additionally, an improper burial of the placenta of a newborn child can be thought of as leading to the disease. However, others consider the cure of a variety of ailments with the leaves of a particular tree, and this alternative health system is an important aspect of culture in the region. It is with these questions in mind that it is important to investigate why people take a particular path to a cure and use a particular type of treatment. Usually, the type of treatment or remedy sought depends on the magnitude and nature of the illness [29, 30, 31]. Some people start with self-care using leaves of trees with medicinal properties. When symptoms persist, they visit traditional healers. If there is no improvement, they seek Western medical treatment. However, in some instances, the treatment taken depends on financial considerations. The efficacy and safety of these treatments vary widely. Leaves of medicinal trees have no noticeable side effects and are considered safe, while mineral treatments may have dangerous side effects or even be fatal. Because of their high cost relative to traditional therapies, chloroquine and quinine are usually the last possibility [32, 33, 34, 35]. However, alternative payment methods may open the door to Western treatments. This is a multi-level approach to an understanding of treatment-seeking behavior for malaria, involving an assessment of the treatment types available and a consideration of how they relate to the different belief systems and cultural practices in this area. These findings are of importance in considering the integration of the traditional medical sector into the district and national health system. This process is fraught with difficulties concerning the standardization and regulation of treatment, as well as the reevaluation of complementary treatments available and the proper training of traditional healers. The treatment-seeking behaviors of four West African research communities demonstrate the complexity and variety of cures available and used. This paper further investigates the cultural roles these cures play in patient care and speculates on how the reasons underlying the choice of therapy may not be as straightforward as it seems [36, 37, 38].

Alternative Treatments

Various alternative treatments are administered in the syndromic management of malaria. The application of traditional healers appeared to wane as preference was given to hospital treatment despite continued malaria incidence. Nevertheless, 81 individuals sought treatment with traditional treatments. People primarily sought traditional treatments concurrently with Western treatment, denoting a potential return to a more hybrid malaria treatment system. There is an overwhelming array of methods prescribed by traditional healers. These include, among other practices, spending a night or two in the bush with a fire; enlisting a diviner; examining the spleen, stomach, and liver of a chicken or another animal, and then either disinfecting the patient in the same way, or letting the animal take the ailment; drinking boiled herbal mixtures concocted from barks, leaves, roots, or shellfish; or stationing oneself under a basin of water [39, 40, 41]. Likewise, bio-medical treatments are expansive, encompassing over ten different combinations of two prophylactic and myriad therapeutic possibilities, in addition to seeking

medical attention privately approximately forty-five to sixty times more frequently than going to a hospital. As such, the possibility continues for a type 3 system of treatment, in which biomedical and traditional treatments are applied concurrently. The choice model fitted with a type 3 model, suggesting an equal probability for hospital, private, and home bio-medical treatment as a traditional healer. At present, treatment preference may gravitate towards orthodox remedies. However, the possibility remains for a resurgence of traditional treatments [42, 43, 44, 45].

Patient Perspectives

This paper will delve into patient perspectives regarding malaria treatment, focusing on their experiences, beliefs, preferences, and perceptions of different types of treatment. A general problem in each section is discussed in terms of the patient's personal beliefs, cultural contexts, and prior experiences. This is followed by a list of potential bullet points that will shape each section. The possible use of qualitative data from interviews or surveys is suggested; this would help to elaborate deeper into emotional and psychological factors related to perceptions of certain treatments. The impact on decisions of patients by social support and community attitudes is noted, which can be based on observations of the treatment of malaria in different settings [1, 3, 5]. The relationship between various forms of traditional and Western treatments and how patients regard them is also considered, discussing the importance of knowledge, misconceptions, as well as trust in healthcare providers. This section ends with a strong emphasis on the significance of patient voices that are often omitted in discussions of treatment and how understanding such views could contribute to the design and implementation of more efficacious treatment and prevention strategies [6, 8, 9, 10]. Malaria is a disease that has a great deal of impact on patients due to the impairing fevers, chills, aches, and general malaise from which they suffer. Many seek treatment for relief of symptoms rather than a complete cure. A general problem patients face is that symptoms of malaria are similar to common illness and that the disease is not always recognized: accordingly, patients attempt to treat themselves with little experience and gradual shift between western and traditional methods is common. The necessary period of treatment to take effect may sometimes exceed patients' ability to comply due to economic and socially related concerns. Reflecting on ethnographic data, it can be seen that personal beliefs largely shape the choices of treatment that patients seek when confronted with fever and chills. Hence, an understanding of patient perspectives from an insider's viewpoint could shed light on a predictable pattern of seeking treatment when infected with *P. falciparum* malaria; this section examines patient perspectives on malaria treatment through this and other angles [11, 14, 17, 18].

Challenges in Malaria Care

Despite the availability of diagnostic tests and drugs for malaria, there is evidence that patients do not always receive appropriate treatment or complete their treatment regimen; this may, in turn, encourage the development of resistance to drugs. There is a need, therefore, for an in-depth understanding of the factors that affect treatment outcomes. It may prompt stakeholders to develop and implement policies that will ensure appropriate treatment practices. Multiple factors affect malaria treatment outcomes. These include issues surrounding access to formal healthcare providers, particularly if they do not exist in the vicinity of a patient or if they are only available privately [20, 24, 26]. This has encouraged greater reliance on the private commercial sector and treatment from diversified antimalarial drug vendors. There are also factors concerning how different categories of people are affected that are to be understood. Socio-economic factors influence how willing people are to purchase expensive treatment from establishments that may also be perceived as demanding expensive tests that create stigma and discontent. Those in the urban areas were more likely to complete their regimen than those in the rural and riverine regions. They were also more likely to seek treatment from pharmacies, and general hospitals. Naturally, this study is ongoing. Treatment practices and perceptions of the effectiveness of different treatments need to be explored. The analysis will be extended to observed differences in the healthcare context existing between the study areas and how these affect treatment outcomes. Factors influencing different types and locations of treatment providers that are sought have been explored but not elaborated [27, 29, 30]. The effect of the number of previous fever episodes on the promptness of seeking treatment was observed. The new dataset will enable an increased understanding and analysis of this issue, permitting a full contextualization of the data within the healthcare provision framework existing in the field. A re-analysis of a historical anti-malarial drug resistance dataset will be undertaken to better understand the historical context of the drug. The results will be used to create an explanatory variable to reflect what drug resistance was present each year in each location. The dataset and variables

newly collected during fieldwork are expected to enable a more in-depth exploration of the factors affecting treatment outcomes than has been possible to date [35, 37, 38].

Comparative Analysis

Although malaria is a treatable disease, the right treatment is not always available in the right place, and accessible treatments are not always used properly. Over the last 30 years, increased resistance to the cheap and affordable classical treatments, the antimalarials (AMs), poses a severe combination with the inadequacies of the modern sector, i.e., missing diagnostic control, departure of trained staff towards higher-paid jobs in industry and NGOs. This strategy is about integrating locally available, affordable AMs in the existing treatment sector, which is widely consumed in the traditional and alternative medicine sector, and health interventions are needed, utilizing them in various ways to provide accessible biomedical AMs [39, 40, 41]. A comparative efficacy and safety assessment between AMs and market products needs to be undertaken. A clinical effectiveness assessment requires a comparison of the advantages and disadvantages of AMs and locally used treatments. Drugs need to be imparted together with the advice on how to use them properly, following well-understood instructions. A first useful set of questions or tasks could, for example, be formulated for a case form broad diagnosed AM treatment providers implementing such a therapeutic guidance system [42, 43, 44, 45]. How does the range of AM consumption options for the population suffering a presumable malaria attack vary? Second, which advantages or disadvantages of different AM recommendations are described by the population? Metrically, the proportion of sick individuals who had recovered after seven days or whose health state had improved will be measured, including a match of their self-diagnosing with the providers as to whether the disease was “strong”. Furthermore, the prevalence of experienced side-effects will be asked and compared, e.g., to the case of traditional spirits, which nowadays are hardly ever used. Long-term impacts can be covered. These questions could also be asked in a broader socio-economic context of the patient, concerning both the general health and the respective treatment episode [13, 14].

Future Directions in Malaria Treatment

The majority of patients initially visit the informal sector for their illness, where home remedies such as attending traditional healers remain important sources for malaria care. As the disease progression becomes more apparent, patients are more likely to switch to the formal health sector. However, in most cases, patients begin with medication mainly obtained from retail pharmacies. They may switch to more expensive treatment options like doctor's clinics, hospitals, and blood tests/change of labs later. This tendency remains the same for the type of care given to the disease, especially with the use of pharmaceutical medicine acquired from more expensive treatment options. This is very interesting information derived from patient pathways from observed data, reflecting also the cultural and financial situation of the aforementioned countries towards malaria treatment. A comparison of treatment pathways among different countries reveals different situations in diagnosed care, treatment care, types of treatment care, and illness care divided by pathways and future development. Despite the progress in available and innovative therapies for treating malaria, drug resistance remains a major obstacle to effective medication, which in some cases is rapidly losing potency. There is an urgent need for research and development of medicines to combat resistant strains. Despite improvements in geographical and laboratory access to diagnostic methods and treatments, there are still widespread shortcomings and needs, particularly in rural areas. There is a strong need for the development of technological solutions to improve treatment and care by making it more accessible, quicker, and more informative to the patients. Finally, the importance of proper pharmaceutical management is highlighted to reduce dependence on ineffective treatments, raise community awareness, and establish guidelines to divide responsibilities between the researchers, healthcare providers, and representative stakeholders involved in the malaria care procedure [15, 16].

Policy Implications

Although chronic polypharmacy across health systems is largely considered a health risk, qualitative data from North-East Cambodia show that patients deliberately switch between multiple treatment options. This research investigated and explored treatment-seeking trajectories, motivations behind these choices, and how the effectiveness of therapeutic strategies were evaluated in the context of (presumed) malaria. Quantitative health facility data and qualitative data based on in-depth interviews and participant observation were collected as part of malaria studies in Ratanakiri province between 2006 and 2011. Despite the official treatment guidelines, patients across villages, ethnic, and socio-economic strata engaged in a diversification of treatment-seeking routes whenever the recovery with the selected

treatment regimes was badly affecting their agro-pastoral livelihood activities. A model commonly used by international health organizations to disseminate research-driven guidelines counsels governments to dictate certain 'best practice' healthcare rules which should imperatively be applied by healthcare providers. It is key that Western stakeholders revisit this model and adopt more adaptive frameworks of analysis. These should allow for diversification of intervention practices in health system strengthening initiatives and safeguard the continued legitimacy of existing and effective local medical practices after malaria elimination. Most importantly, evidence-based policy making should be founded not only on epidemiological research but take on broader cross-disciplinary ethnographic investigations into the sociality of treatment and care [17, 18].

CONCLUSION

Understanding patient perspectives on malaria treatment is essential for designing effective healthcare interventions. Traditional medicine remains an important resource due to its accessibility and cultural significance, while biomedical treatments offer scientifically validated solutions. However, financial constraints, mistrust of healthcare systems, and deeply ingrained cultural beliefs shape treatment choices. Bridging the gap between traditional and Western medicine through integrated health policies, education, and community engagement can enhance malaria care. Future research should focus on improving treatment adherence, reducing drug resistance, and fostering collaboration between traditional healers and biomedical practitioners to ensure comprehensive and sustainable malaria management.

REFERENCES

1. Ampomah IG, Ampomah GA, Emeto TI. Integrating modern and herbal medicines in controlling malaria: experiences of orthodox healthcare providers in Ghana. *Archives of Public Health*. 2024 Dec 23;82(1):240.
2. Zack T, Lehman E, Suzgun M, Rodriguez JA, Celi LA, Gichoya J, Jurafsky D, Szolovits P, Bates DW, Abdunour RE, Butte AJ. Assessing the potential of GPT-4 to perpetuate racial and gender biases in health care: a model evaluation study. *The Lancet Digital Health*. 2024 Jan 1;6(1):e12-22. [thelancet.com](https://doi.org/10.1016/S2662-4665(23)00222-2)
3. Savi MK. An overview of malaria transmission mechanisms, control, and modeling. *Medical Sciences*. 2022 Dec 23;11(1):3.
4. Traore O, Ouedraogo A, Compaore M, Nikiema K, Zombre A, Kiendrebeogo M, Blankert B, Duez P. Social perceptions of malaria and diagnostic-driven malaria treatment in Burkina Faso. *Heliyon*. 2021 Jan 1;7(1).
5. Awasthi KR, Jancey J, Clements AC, Leavy JE. A qualitative study of knowledge, attitudes and perceptions towards malaria prevention among people living in rural upper river valleys of Nepal. *PloS one*. 2022 Mar 18;17(3):e0265561.
6. Kayiba NK, Yobi DM, Devleesschauwer B, Mvumbi DM, Kabututu PZ, Likwela JL, Kalindula LA, DeMol P, Hayette MP, Mvumbi GL, Lusamba PD. Care-seeking behaviour and socio-economic burden associated with uncomplicated malaria in the Democratic Republic of Congo. *Malaria journal*. 2021 Jun 9;20(1):260. [springer.com](https://doi.org/10.1186/s12936-021-03600-0)
7. Gryseels C, Uk S, Erhart A, Gerrets R, Sluydts V, Durnez L, Muela Ribera J, Hausmann Muela S, Menard D, Heng S, Sochantha T. Injections, cocktails and diviners: therapeutic flexibility in the context of malaria elimination and drug resistance in Northeast Cambodia. *PloS one*. 2013 Nov 11;8(11):e80343.
8. Chekroud AM, Bondar J, Delgadillo J, Doherty G, Wasil A, Fokkema M, Cohen Z, Belgrave D, DeRubeis R, Iniesta R, Dwyer D. The promise of machine learning in predicting treatment outcomes in psychiatry. *World Psychiatry*. 2021 Jun;20(2):154-70. [wiley.com](https://doi.org/10.1016/j.wpsyc.2021.03.003)
9. van der Willik EM, Terwee CB, Bos WJ, Hemmelder MH, Jager KJ, Zoccali C, Dekker FW, Meuleman Y. Patient-reported outcome measures (PROMs): making sense of individual PROM scores and changes in PROM scores over time. *Nephrology*. 2021 May;26(5):391-9. [wiley.com](https://doi.org/10.1111/nep.14500)
10. Crowe S, Howard AF, Vanderspank-Wright B, Gillis P, McLeod F, Penner C, Haljan G. The effect of COVID-19 pandemic on the mental health of Canadian critical care nurses providing patient care during the early phase pandemic: A mixed method study. *Intensive and Critical Care Nursing*. 2021 Apr 1;63:102999. [nih.gov](https://doi.org/10.1016/j.iccn.2021.102999)
11. Dale W, Klepin HD, Williams GR, Alibhai SM, Bergerot C, Brintzenhofesoc K, Hopkins JO, Jhaver MP, Katheria V, Loh KP, Lowenstein LM. Practical assessment and management of

- vulnerabilities in older patients receiving systemic cancer therapy: ASCO guideline update. *Journal of Clinical Oncology*. 2023 Sep 10;41(26):4293-312. ascopubs.org
12. Kucharzik T, Ellul P, Greuter T, Rahier JF, Verstockt B, Abreu C, Albuquerque A, Allocca M, Esteve M, Farraye FA, Gordon H. ECCO guidelines on the prevention, diagnosis, and management of infections in inflammatory bowel disease. *Journal of Crohn's and Colitis*. 2021 Jun 1;15(6):879-913. um.edu.mt
13. Akoniya OP, Adewumi TS, Maharaj L, Oyegoke OO, Roux A, Adeleke MA, Maharaj R, Okpeku M. Whole genome sequencing contributions and challenges in disease reduction focused on malaria. *Biology*. 2022 Apr 13;11(4):587. mdpi.com
14. Duffey M, Shafer RW, Timm J, Burrows JN, Fotouhi N, Cockett M, Leroy D. Combating antimicrobial resistance in malaria, HIV and tuberculosis. *Nature Reviews Drug Discovery*. 2024 Jun;23(6):461-79. [\[HTML\]](#)
15. Alam MS, Alam MJ, Hossain MS, Matin MA, Phru CS, Hasan A, Rahman MM, Rahaman MM, Islam MN, Das SK, Aktaruzzaman MM. Assessing the role of the for-profit private healthcare sector in malaria elimination efforts in Bangladesh: a cross-sectional study of challenges and opportunities. *BMC Public Health*. 2024 Oct 25;24(1):2969. springer.com
16. Traore O, Ouedraogo A, Compaore M, Nikiema K, Zombre A, Kiendrebeogo M, Blankert B, Duez P. Social perceptions of malaria and diagnostic-driven malaria treatment in Burkina Faso. *Heliyon*. 2021 Jan 1;7(1). cell.com
17. Bawate C, Callender-Carter ST, Guyah B, Ouma C. Factors influencing patients' adherence to malaria artemisinin-based combination therapy in Kamuli District, Uganda. *Malaria Journal*. 2024 Jan 2;23(1):1.
18. Boni MF. Breaking the cycle of malaria treatment failure. *Frontiers in Epidemiology*. 2022 Dec 14;2:1041896.
19. Orji OU, Ibiam UA, Aja PM, Ugwu P, Uraku AJ, Aloke C, Obasi OD, Nwali BU. Evaluation of the phytochemical and nutritional profiles of *Cnidioscolus aconitifolius* leaf collected in Abakaliki South East Nigeria. *World J Med Sci*. 2016;13(3):213-217.
20. Enechi OC, Okpe CC, Ibe GN, Omeje KO, Ugwu Okechukwu PC. Effect of *Buchholzia coriacea* methanol extract on haematological indices and liver function parameters in *Plasmodium berghei*-infected mice. *Glob Veterinaria*. 2016;16(1):57-66.
21. Alum EU, Uti DE, Ugwu Okechukwu PC, Alum BN. Toward a cure—Advancing HIV/AIDS treatment modalities beyond antiretroviral therapy: A review. *Med*. 2024;103(27):e38768.
22. Obeagu EI, Bot YS, Obeagu GU, Alum EU, Ugwu Okechukwu PC. Anaemia and risk factors in lactating mothers: A concern in Africa. *Int J Innov Appl Res*. 2024;11(2):15-17.
23. Alum EU, Ibiam UA, Ugwuja EI, Aja PM, Igwenyi IO, Ofor CE, Orji UO, Ezeani NN, Ugwu OP, Aloke C, Egwu CO. Antioxidant effect of *Buchholzia coriacea* ethanol leaf extract and fractions on Freund's adjuvant-induced arthritis in albino rats: A comparative study. 2022;59(1):31-45.
24. Ofor CE, Ugwu Okechukwu PC, Alum EU. Determination of ascorbic acid contents of fruits and vegetables. *Int J Pharm Med Sci*. 2015;5:1-3.
25. Amusa MO, Adepoju AO, Ugwu Okechukwu PC, Alum EU, Obeagu EI, Okon MB, Aja PM, Samson AOS. Effect of ethanol leaf extract of *Chromolaena odorata* on lipid profile of streptozotocin-induced diabetic Wistar albino rats. *IAA J Biol Sci*. 2024;10(1):109-117.
26. Enechi YS, Ugwu OC, Ugwu Okechukwu PC, Omeh K. Evaluation of the antinutrient levels of *Ceiba pentandra* leaves. *IJRRPAS*. 2013;3(3):394-400.
27. Ugwu Okechukwu PC, Nwodo OFC, Joshua EP, Odo CE, Ossai EC. Effect of ethanol leaf extract of *Moringa oleifera* on lipid profile of malaria-infected mice. *Res J Pharm Biol Chem Sci*. 2014;4(1):1324-1332.
28. Ugwu OPC, Alum EU, Uhama KC. Dual burden of diabetes mellitus and malaria: Exploring the role of phytochemicals and vitamins in disease management. *Res Inven J Res Med Sci*. 2024;3(2):38-49.
29. Alum EU, Ugwu Okechukwu PC, Aja PM, Obeagu EI, Inya JE, Onyeije AP, Agu E, Awuchi CG. Restorative effects of ethanolic leaf extract of *Datura stramonium* against methotrexate-induced hematological impairments. *Cogent Food Agric*. 2013;9(1):2258774.

30. Offor CE, Nwankwegu FC, Joshua EP, Ugwu Okechukwu PC. Acute toxicity investigation and anti-diarrhoeal effect of the chloroform-methanol extract of the leaves of *Persea americana*. *Iran J Pharm Res*. 2014;13(2):651-658.
31. Afiukwa CA, Oko AO, Afiukwa JN, Ugwu Okechukwu PC, Ali FU, Ossai EC. Proximate and mineral element compositions of five edible wild grown mushroom species in Abakaliki, southeast Nigeria. *Res J Pharm Biol Chem Sci*. 2013;4:1056-1064.
32. Ugwu OP, Alum EU, Ugwu JN, Eze VH, Ugwu CN, Ogenyi FC, Okon MB. Harnessing technology for infectious disease response in conflict zones: Challenges, innovations, and policy implications. *Med*. 2024;103(28):e38834.
33. Obeagu EI, Ugwu OPC, Alum EU. Poor glycaemic control among diabetic patients; A review on associated factors. *Newport Int J Res Med Sci*. 2023;3(1):30-33.
34. Nwaka AC, Ikechi-Agba MC, Okechukwu PU, Igwenyi IO, Agbafor KN, Orji OU, Ezugwu AL. The effects of ethanol extracts of *Jatropha curcas* on some hematological parameters of chloroform intoxicated rats. *Am-Eur J Sci Res*. 2015;10(1):45-49.
35. Ezeani NN, Ibiam UA, Orji OU, Igwenyi IO, Aloke C, Alum E, Aja PM, Ugwu OP. Effects of aqueous and ethanol root extracts of *Ola x subscorpioidea* on inflammatory parameters in complete Freund's adjuvant-collagen type II induced arthritic albino rats. *Pharmacogn J*. 2019;11(1).
36. Obeagu EI, Nimo OM, Bunu UO, Ugwu OP, Alum EU. Anaemia in children under five years: African perspectives. *Int J Curr Res Biol Med*. 2023;1:1-7.
37. Obeagu EI, Obeagu GU, Igwe MC, Alum EU, Ugwu OP. Men's essential roles in the management of sickle cell anemia. *Newport Int J Sci Exp Sci*. 2023;4(2):20-29.
38. Obi BE, Okechukwu PU, Obeagu EI, Ifemeje JC. Antianaemic potential of aqueous leaf extract of *Mucuna pruriens* on Wistar albino rats. *Int J Curr Microbiol Appl Sci*. 2014;3(1):707-712.
39. Ezekwe CI, Uzomba CR, Ugwu OPC. The effect of methanol extract of *Talinum triangulare* (water leaf) on the hematology and some liver parameters of experimental rats. *Glob J Biotechnol Biochem*. 2013;8(2):51-60.
40. Obeagu EI, Ali MM, Alum EU, Obeagu GU, Ugwu PC, Bunu UO. An update of anaemia in adults with heart failure. *Int Netw Org Sci Res*. 2023. Available from: <http://hdl.handle.net/20.500.12493/14516>.
41. Chukwuemeka I, Utuk GS, Ugwu OPC, Ibiam UA, Aja PM, Offor CE. The effect of ethanol leaf extract of *Jatropha curcas* on some haematological parameters of cyclophosphamide-induced anaemia in Wistar albino rats. *Eur J Appl Sci*. 2015;7(1):17-20.
42. Offor SCE, Ukpabi EN, Ogbanshi ME, Okechukwu PU, Nwali BU. The effects of ethanol leaf-extract of *Anacardium occidentale* on haemoglobin and packed cell volume of albino rats. *World J Altern Med*. 2014;1(1):5-8.
43. Obeagu EI, Alum EU, Ugwu OPC. Hepcidin's Antimalarial Arsenal: Safeguarding the Host. *Newport Int J Public Health Pharm*. 2023;4(2):1-8. <https://doi.org/10.59298/NIJPP/2023/10.1.1100>
44. Ugwu PC Okechukwu, Nwodo OFC, Joshua PE, Odo CE, Bawa A, Ossai EC, Adonu CC. Anti-malaria and hematological analyses of ethanol leaf extract of *Moringa oleifera* on malaria infected mice. *Int J Pharm Biol Sci*. 2013;3(1):360-371.
45. Ugwu PC Okechukwu, Nwodo OFC, Joshua PE, Odo CE, Ossai EC, Bawa B. Ameliorative effects of ethanol leaf extract of *Moringa oleifera* on the liver and kidney markers of malaria infected mice. 2013;2(2):43-52.

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